

Notice of Allowability

Application No.

10/735,630

Examiner

Trisha Vu

Applicant(s)

ISHIMURA ET AL.

Art Unit

2111

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed 02/26/2007.
2. ☒ The allowed claim(s) is/are 14-18 and 21-23.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

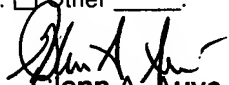
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

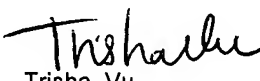
4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 04/20/07, 12/16/03
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 20070514.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other


Glenn A. Auve
Primary Patent Examiner
Technology Center 2100


Trisha Vu
Examiner
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EXAMINER'S AMENDMENT and REASONS FOR ALLOWANCE

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Eduardo Garcia-Otero (Reg. No. 56609) on 05/14/07 and 05/30/07.

The application has been amended as follows:

In the abstract: delete the old abstract and replace it with the following:

-- In a system in which a CPU contained LSI and an external CPU share a bus, when the external CPU accesses a device to be controlled which is connected to a bus, the access to a device mounted on the common bus is not prevented in the CPU contained LSI. A CPU contained LSI includes a CPUa, common address/data buses 111 and 112 connected to the CPUa, CPUp address/data buses 211 and 212 connected to a CPUp, and a bus adjusting circuit 105 disposed between the common address/data buses and the CPUp address/data buses to exclusively control accesses from the CPUa and the CPUp to a device connected to the common address/data buses and connect the CPUp address/data buses to the common address/data buses only when the CPUp is permitted to access the device connected to the common address/data buses. --.

In the claims:

Cancel claim 19 and claim 20.

In claim 14, line 7: delete “the first bus;” and insert in its place -- the first bus;

wherein the bus adjusting circuit is provided with an interrupt control
circuit for informing of an interruption between the contained CPU and
the external CPU; the interrupt control circuit includes an interrupt factor
register having a plurality of bits in which the allocation and setting of bits
of an interrupt factor are programmable and a circuit for outputting an
interrupt signal; --.

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2. Claims 14-18 and 21-23 are allowed.

The following is an examiner's statement of reasons for allowance:

The claims include the limitation of a bus adjusting circuit disposed between the first bus and the second bus to exclusively control accesses of the external CPU and the contained CPU to a device connected to the first bus wherein the bus adjusting circuit is provided with an interrupt control circuit for informing of an interruption between the contained CPU and the external CPU; the interrupt control circuit includes an interrupt factor register having a plurality of bits in which the allocation and setting of bits of an interrupt factor are programmable and a circuit for outputting an interrupt signal, which is not shown by the prior art of record, in the combination as disclosed and claimed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

U.S. Patent 5,392,436 (Jansen et al.) discloses the use of wait signal (HOLD line) in arbitration.

U.S. Patent 5,448,743 (Gulick et al.) discloses I/O port interrupt mechanism.

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4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trisha Vu whose telephone number is 571-272-3643. The examiner can normally be reached on Mon-Thur and alternate Fri 8:00am - 5:30pm.

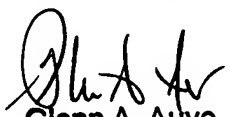
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on 571-272-3632. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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